

APPARATUS AND METHOD FOR SEPARATING
DETECTION AND ASSERTION OF A TRIGGER EVENT

Abstract of the Invention

1 A trace test and debug system for a target processor
2 includes a trigger unit or other apparatus that permits the
3 detection of selected events. The trigger unit also
4 receives input signals concerning the operational mode of
5 the target processor. The trigger unit is responsive to
6 programmed input by a user. As a consequence, the trigger
7 unit can separate the detection of an event from the
8 response to the event. In the specific example of the
9 trigger unit, the generated trigger signals can be
10 separated from the actual detection of the event. This
11 capability is particularly useful when the user desires
12 that the assertion of the response to an event occurring
13 during foreground (interrupt service routine) not be
14 permitted during the foreground code execution. The
15 assertions of the response to an event are therefore
16 delayed until the target processor is in a background
17 (normal program) mode of operation. Thus, the response to
18 an event can be separated from the detection of the event
19 under the control of the user.